

# ABSTRACT

In a communication method for transmitting a multipath characteristic measurement signal and a plurality of data transmission signals, the multipath characteristic measurement signal and data transmission signals are a signal array formed by a plurality of coefficient matrices that are orthogonal to one another within the matrices and which comprise at least one coefficient array that is common in the column direction or row direction. The multipath characteristic measurement signal formed by the coefficient matrices is the same signal array formed by the one common coefficient array. As a result, the transmission wait time and the signal reception time required for transmission of a multiplicity of data transmission signals are shortened in the simultaneous transmission of the multipath characteristic measurement signal and the plurality of data transmission signals by the spread modulation of transmission data by means of a spread spectrum, whereby the scale of the reception processing device is miniaturized.